

REMARKS

Favorable consideration of this Application in light of the following discussion is respectfully requested.

Claims 1-16 are pending in the present Application. No new matter has been added.

By way of summary, the Official Action presents the following issues: Claims 1-16 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite; Claims 1-2, 4-5, and 9-12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lee (U.S. patent No. 6,542,506) in view of Ramaswamy et al., (U.S. Patent No. 6,888,840, hereinafter Ramaswamy); Claim 3 stands rejected under 35 U.S.C. § 103 as being unpatentable over Lee and Ramaswamy, as applied to Claim 1, and further in view of Okura et al., (U.S. Patent No. 5,297,139, hereinafter Okura); Claims 6-7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lee and Ramaswamy as applied to Claim 1, and further in view of Robinett et al., (U.S. Patent Publication No. 2002/0131443 A1, hereinafter Robinett); Claim 8 stands rejected under 35 U.S.C. § 103 as being unpatentable over Lee and Ramaswamy as applied to Claim 1, and further in view of Saito et al. (U.S. Patent No. 6,523,696, hereinafter Saito); and, Claims 13-16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lee and Ramaswamy as applied to Claims 1 and 10-12, and further in view of Sato (U.S. Patent No. 6,128,318).

REJECTION UNDER 35 U.S.C. § 112

The Official Action has rejected Claims 1-16 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant respectfully traverses the rejection.

The Official Action, at paragraph 3, states that the claim language “the degree of non-coincidence between said first and second network” is vague and indefinite. In this regard,

Applicant respectfully directs the Examiner's attention to the second paragraph, page 34 of the specification, as well as Figs. 11 and 14.

Further, the Official Action states that the claim language "control means for controlling the data transferred to the second network in accordance with *a detection result provided by said detection means*" is vague and indefinite because it is unclear if the control means uses the result of degree of non-coincidence between said first and second network or amount of data stored in said storage means or both the results. In this regard, Applicant respectfully directs the Examiner's attention to the following claim language:

detection means for detecting the degree of non-coincidence
between said first and second network **and** amount of data stored in said
storage means. . . (emphasis added)

The detection result includes both the degree of non-coincidence and detected data amount. Accordingly, Applicant respectfully requests that the rejection of Claims 1-16 under 35 U.S.C. § 112 be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 1-2, 4-5, and 9-12 under 35 U.S.C. § 103 as being unpatentable over Lee in view of Ramaswamy. The Official Action states that Lee discloses all of the elements of the Applicants' claims, with the exception of detecting a degree of non-coincidence between a first and second network and amount of data stored in a storage means, for each data flow, and, control means for controlling the data transferred to the second network in accordance with a detection result. The Official Action cites Ramaswamy as disclosing this more detailed aspect of the Applicants' invention and states that it would have been obvious to one of skilled at the art at the time the invention was made to combine the cited references to arrive at the Applicants' claims. Applicant respectfully traverses the rejection.

Lee describes a gateway for mediating communications between networks. The gateway includes a 1394 protocol layer (300) and an ATM protocol layer (310). A 1394 to ATM short-cut (320) and an IP layer (330) are provided to mediate communications between the 1394 network and the ATM network. The short-cut provides a data transmission path between the 1394 network and the ATM network.¹

In operation, when network data is first provided, the 1394 link layer (302) sets and memorizes the relationship between a channel number of the 1394 network and an area of a predetermined buffer memory to store the provided data therein. Then, when another 1394 data, having the set channel number, is provided to the 1394 link layer, the 1394 link layer stores the 1394 data in a corresponding area according to the relationship between the channel and the buffer memory area.² The ATM link layer (430) stores a virtual channel (VC) and a virtual path (VP) whose connection to initial transmitted data is set up in associated with a buffer area. In this way, a path between the predetermined 1394 channel data and an ATM virtual connection may be set to facilitate the transfer of data.³

Ramaswamy describes a remodulator system in which digital signals representing a receive packet stream in one format or recorded in a digital video cassette recorder retrieved an reformatted into a packet stream in another format.⁴ The remodulator includes a numerically controlled oscillator, as shown in Figs. 3 and 5. As can be appreciated from review of Fig. 1, the numerically controlled oscillator functions to produce a bit-state control signal to determine the timing when an input transport packet must be inserted into the output packet stream and a timing of one of an additional packet (either auxiliarily or null) must be inserted into the output packet stream. This control is provided during the remodulation of

¹ Lee at Fig. 3.

² Lee at column 4, lines 22-59.

³ Lee at Fig. 3; Fig. 6, column 4; line 36 through column 6, line 17.

⁴ Ramaswamy at column 2, lines 63-67

one input packet stream into another format for the purpose of maintaining timing intervals in order that the time stamps inserted into the packet stream maintain accurate control over video display.

Conversely, in an operation of the present invention, the data transfer apparatus (42-2) may receive digital video data transmitted from digital video cassette recorder (11-1) by way of serial network (12-1), asynchronous network (15-1) and asynchronous network (15-2). Upon receipt of such data from serial network (15-2), the data transfer apparatus (42-2) stores such data in intermediate buffers such that different data flows are stored in different buffers. Detection circuitry is provided for detecting the degree of non-coincidence between a first and second network and the amount of data stored in the memory for each data flow. Control circuitry manages the transfer of data to the second network in accordance with a detection result of the detection circuitry. In this way, timing differences in the data caused by the non-coincident bus cycles of the first and second network, as well as underflow and overflow conditions, can be accounted for to eliminate undesirable artifacts in the reproduced digital video.⁵

As the numerically controlled oscillator of Ramaswamy deals only with a signal representing a difference in time duration between an input and output transport packet (T_{in} / T_{out}), the difference in timing will be dictated by the bit rates of the corresponding format and not a non-coincidence between bus cycles of respective networks.⁶ Neither Lee alone, or in combination with Ramaswamy, disclose or suggest transferring data between a first network and a second network, the second network having a non-coincident bus cycle with respect to the first network based upon a detection result including an amount of data stored in memory and a degree of non-coincidence between network bus cycles, as recited in Claim

⁵ Application at page 26, second full paragraph, 2 paragraph bridging pages 33 and 34.

⁶ See Official Action of July 11, 2005 at page 4.

1 and any claim depending therefrom. Likewise, as independent Claims 10 and 11 recite substantially the same limitations discussed above, these claims, as well as any claimed depending therefrom, are allowable, at least for the same reasons.

The Official Action has rejected Claim 3 under 35 U.S.C. § 103 as being unpatentable over Lee and Ramaswamy, as applied to Claim 1, and further in view of Okura. The Official Action states that Lee and Ramaswamy disclose all of the Applicants' claim limitations, with the exception of a control means which starts reading data from a storage means after the amount of data stored in the storage means has become equal to or greater than predetermined threshold value. The Official Action Okura as teaching this more detailed aspect of the Applicants' invention, and states that it would have been obvious to one skilled in the art at the time the invention was made to combined the cited references for arriving at the Applicants' claims. Applicant respectfully traverses the rejection.

As discussed above, Lee, neither alone, or in combination with Ramaswamy, disclose or suggest Applicants' data transfer apparatus. Likewise, Okura does not remedy this deficiency; and, therefore, none of the cited references, either alone, or in combination, can properly be asserted as disclosing or suggesting Applicants' Claim 3, which includes the above-distinguished limitations by virtue of its dependency. Therefore, the Official Action does not provide a *prima facie* case of obviousness with regard to this claim.

Accordingly, Applicant respectfully requests that the rejection of Claim 3 under 35 U.S.C. § 103 be withdrawn.

The Official Action has rejected Claims 6-7 under 35 U.S.C. § 103 as being unpatentable over Lee and Ramaswamy as applied to Claim 1, and further in view of Robinett.

With regard to Claim 7, the Official Action states that Robinett discloses that during an interval, when a node transport packet may be replaced with a data bearing transport packet corresponds to the Applicant's claimed substantial middle point of a predetermined period. Applicant wishes to point out that the term "period," as recited in the claims, is used in relation to a predetermined amount of data, such as a data frame. For example, as shown in Fig. 14, steps 87 and 92 illustrate the concept of inserting or discarding an empty packet at the middle (3072/2) of a period of frames. Robinett does not disclose or suggest this more detailed aspect of the Applicant's claim.

Accordingly, Applicant respectfully requests that the rejection of Claims 6-7 under 35 U.S.C. § 103 be withdrawn.

The Official Action has rejected Claim 8 under 35 U.S.C. § 103 as being unpatentable over Lee and Ramaswamy as applied to Claim 1, and further in view of Saito et al. (U.S. Patent No. 6,523,696, hereinafter Saito). The Official Action states that Lee and Ramaswamy disclose all of the Applicants' claim limitations, with the reception of an IEEE 1394 serial bus. The Official Action cites Saito as teaching this more detailed aspect of the Applicants' invention, and states that it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the cited references for arriving at the Applicants' claims.

As discussed above, neither Lee, nor Ramaswamy, disclose or suggest Applicants' data transfer apparatus. Likewise, Okura does not remedy this deficiency; and, therefore, none of the cited references, either alone, or in combination, can properly be asserted as disclosing or suggesting Applicants' Claim 8, which includes the above-distinguished limitations by virtue of its dependency. Therefore, the Official Action does not provide a *prima facie* case of obviousness with regard to this claim.

Accordingly, Applicant respectfully requests that the rejection of Claim 8 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

As Applicants have not substantively amended the claims in response to any rejection of record, should a further rejection be applied in the next Action based upon newly cited prior art, Applicants submit that such an action **cannot properly be considered a Final Office Action.**

Consequently, in view of the foregoing Amendment and remarks, it is respectfully submitted that the present Application, including Claims 1-16, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.


Respectfully submitted,

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